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ORIGINAL COMMUNICATIONS.

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CLASS HISTORY.

MRS. CARRIE F. YOUNG, M. D.

OLIVER WENDELL HOLMES says that a slight circumstance often causes a new arrangement of well set things. Three college years we have been together as a class. Last week, our final examinations for the degree of M. D. were passed. That was a part of the circumstance that this evening has brought about a new arrangement of things.

Talmage painted a word picture of the ideal American: "German brain, French civility, English loyalty, Scotch firmness, Welsh fluency, Irish wit, Italian love of the æsthetic, all intensified by American individuality." All we lack as a class to round out this picture is the Italian love of the beautiful—therefore we are not perfect!

We are a class, made up of many diversities, the fusion of which, into a harmonious whole, has not been easy. In three things only have we been a unit. First, to agree to disagree; second, to do the very best we could in study and recitation; third, each one tried to stand nearest the clinique or cadaver, when an operation was to be performed or a principle illustrated.

When we entered college, we thought we were grown up men and women. Within a year the Dean assured us we

were children! Certainly he ought to know! Thereafter, in noisy fun and frolic, we *were* children. It would never do to disappoint the Dean, you know.

During the summer term our honored Dean gave us a course of lectures on secondary digestion, making it appear that bad health and bad temper, in child or adult, might be the result of an excess of glycogen in the system. To-night we return this bit of argument in explanation of why we were unruly, noisy children. We were not bad. It was the legitimate effect of an excess of glycogen! The beef-steak, and the cook, the stomach and the liver, should be put on trial and be held responsible for all the discords that marred the harmony of the class during the rainy season.

Away up-stairs we had a dissecting room. Plenty of lights, fire, tables and subjects, but only three chairs. Sometimes it was very wearisome to walk a mile or two, climb the winding stairs clear up to the top, and then stand up a whole hour to listen to and witness practical instruction in amputations. Our French-German student persisted in offering his chair to a tired and trembling lady. The noise diverted attention from the work in hand. The third time this little side-play happened, we heard ringing through the room the clear voice of our professor, "Attention, class! We are all gentlemen here." (*i. e.* it was not the place to be showing special attention to ladies). A lady in the fourth row replied, "If that be true then I go to the front." Thereafter that lady was found first at the operating table and nearest the subject.

To-night, I think she knows practically much more about amputating the thigh at the hip-joint than she does about cutting a garment for herself. She can talk by the hour about the different methods of repair, but when the dressmaker asked her how the dress should be made, she replied, "By first intention or secondary adhesion, just which will suit the cloth the best," and the garment was made full of interrupted sutures.

During the summer term Professor Crowley gave us a course of lectures on "Formative Forces as Manifested in Cell-life," commencing with a microscopic examination of a particle of protoplasm, showing all the beautiful changes: the appearance of the cell wall; the spontaneous motion; the evolution of the granular nucleus; how cells were nutrified and multiplied, by simple division, gemmation and endogenous

growth. He taught us how cells—in obedience to a law, too fine and subtle to be analyzed—would colonize, and exclusively occupy certain parts of the body, and perform certain functions. He taught us all about stellate cells, round cells, giant cells, columnar cells, epithelial cells, and spindle-shaped cells; how to look for them; what conditions we would find, and results to expect when we found them in tumors and cancerous growths. But we did not dream that men and women could be so absorbed by the contemplation of a scientific subject as to *sell* themselves as cheaply as some of us have to the hair-dresser, the merchant and tailor the past week.

This brings me to my duty, as representative of the class, to you, who represent the outside world. You look curiously into our faces—asking something of our past lives and histories. We introduce to you our senior member, the senator, from Monterey, Albert C. Keating, a native of Michigan, with an honorable college record. During the War of the Rebellion he served in the U. S. Medical Department, under General Grant. In tent and hospital, Dr. K. met his first love, and has persistently courted her ever since. That old flame, however, never made his wife jealous. The name of the fascinating dame is Medicine and Surgery.

Dr. Keating is of Irish descent—from a long line of physicians and surgeons; a polished and educated gentleman, a successful physician and surgeon, determined to keep step to the drum beat of progress—therefore he came to the California Medical College.

N. WALLACE WILLIAMS.—Self-made; this fine physique gives a hint of familiarity with grain cradles, flail, scythe and woodman's axe, away "down East" in the State of Maine. He persists in calling *phytolacca* "phytolac." Is the happiest man in the class. We never saw a frown on his face. He expects to practice and make himself immensely popular on Nob Hill, San Francisco. If he works for it, he can do it.

FIDELIA SAGE.—"Born in 1800—a few." A genuine Massachusetts girl by adoption. At eighteen, in a boarding school, where, by her own testimony, she was more interested in beaus than books. Married young. Learned life's hardest lessons, as a pioneer woman in Minnesota. Widowed quite young, when little children were clinging to her. A half dozen romances could be written from her life.

Has a grown up son and daughter. While nursing her own sick children, the desire to study medicine was born. Has a college record; two years of preparatory study—a six months' partial course at Hahnemann College, Chicago; six months at the Woman's College, San Francisco; came to Oakland because she believed the California Medical College taught the true healing art; understands better than she can describe. A faithful student, a good woman, "a chosen friend."

MRS. MARY LIVINGSTON SHORT.—A native of Iowa; a graduate of Bowen Collegiate Institute; broke down teaching school; went into business; came to California for climate; studied medicine to better understand her own case. Among the poets of ancient Greece reigned supreme, Sappho, Artemisia and Aspasia. Dr. Short has the poetic perception and fire of Sappho. Like Aspasia, she loves knowledge, and would advance woman and compel a recognition of her merits. Like Artemisia, she has courage, enterprise and independence of character.

DR. WEBBER.—Our French-German student, speaks and writes three languages; has musical talent and a classical education. Is a second Isaak Walton. He can call by name more fishes than any Italian on the bay. Rumor has it that stingaree tails and tomcods ornament the walls of his rooms. He is cautious, willful, and polite. Mention bismuth as a remedy for *gastritis*, he replies, "Bismarck, Bismarck—what has he to do with a bad stomach?" Defeated in an argument, Dr. W. shelters himself in this way, "Oh, I do not well understand this language; I cannot say anything, but I think much!" Dr. Webber won't be photographed. How, then, can he persuade any lady in this class to share his bank account?

P. BIRNIE WILSON, A. M., Ph. D.—Twenty-six years old last January. Born and educated in Scotland. Took his degree of A. M. at Kingsbury College, Old Aberdeen, in '74; in '76 graduated from the Apothecaries' Society, London, England; earned his degree of Ph. D. at Göttingen, Germany, graduating in '78; then studied medicine four years at Old Aberdeen, six months of the time serving as assistant in Maternity Hospital, Glasgow; then eighteen months of travel in New Zealand, Australia and America; drifted to California in search of Italian climate; found it, ate it and drank it; recovered his health; added his rush-light to ours,

in class room last January. Shrewd and sharp as any Yankee. He astonished us all examination week. With an ordinary lead pencil he evolved answer after answer to lengthy and complicated questions, while we, who had a half dozen pencils — ah, P. Birnie Wilson, youth, and shrewdness, and lead pencils were important factors to you in graduating week!

ROBERT W. MUSGRAVE, Ph. B.—Scotch-English, California born. Graduated from the College of Chemistry at the State University in '79. A little time served the State by manufacturing carbon bi-sulphite. The boys at the University say he was not content to kill squirrels and phyloxera, and therefore studies medicine. Musgrave wishes to find a girl who has plenty of silver. Ah, Muzzy, Muzzy, of what avail that you studied chemistry! Have you forgotten that girls wear bangs and frizzes, and arrange them by the aid of gum tragacanth, and having ever so much silver, may, themselves, be lunar caustic? Suppose you find the girl and the bangs and the silver? Do not forget that lunar caustic and gum tragacanth united, form an explosive compound. Poor laddie, what will become of you when the explosion comes?

CARRIE F. YOUNG.—German parentage, American born. Educated in the public schools and by private tutors. Studied medicine because she liked to study. When a child picked her dolls to pieces to see what was inside. During her first year in college was more interested in the mathematical problem of fourth dimension of space than in ordinary lessons. She much wishes the time would come when rents in garments and holes in stockings would repair as carbuncles and boils do, without the intervention of needles or sutures—by granulation!

The college quiz class, last year, was protoplasmic; this year it multiplied by simple division, then by segmentation, and last by endogenous growth. Our examination papers proved that the quiz classes were very profitable.

As a class we are not wealthy, but we are solid. We have not brought perishable gifts to the college, but leave a well-organized alumni association, at whose annual gatherings we hope to be able to report progress many years to come.

Associated so long a time as students, with the professors as teachers, a class history without reference to them would be incomplete.

We shall never forget the Dean, his earnestness, his eloquence, his determination that we should be able to explain to him, and convince him that we thoroughly comprehended every practical point in the whole domain of gynecology and obstetrics. Skeleton and bones and models were freely used until we could truthfully say we had learned first principles well.

We have reason to believe that Prof. Maclean has tied as many knots in the line of his specialty as any half dozen clergymen!

Nor can we forget Prof. Crowley, who so thoroughly drilled us in every possible form of fractures, dislocations, and amputations. A month ago, one of our number, hoping to obtain a clue, asked him of the possible direction the final examination questions would take. Prof. Crowley saw the point at once, and said, "Certainly, certainly, I will show you where the questions are; every one of them are within the four covers of Erichsen's Surgery. Study it well, and you will doubtless answer every question." And we studied, and studied till the morning stars came up, and then in the fitful morning sleep dreamed it all over again. To the last our Professor of Surgery, both by precept and example, counseled us to rest wearied nerves and tired brains, by the free use of boxing-gloves and Indian clubs.

Prof. Gere, our scholarly and classical anatomist, required us, under his personal supervision, to dissect twice every part of the human body, and not content with that, has, in our presence, himself dissected every muscle, from caput to digitus-pedis, carefully describing the same. This part of the lesson was easy and interesting. The brain-trying part came the next day, when we were called upon, as he lifted the muscle, to describe to him its name, origin, insertion, relations, peculiarities and use or action. Sometimes we failed. People talk about Turkish baths and their merits and cost. Bath-rooms are very popular in Oakland, but California Medical College can eclipse them all. If you wish a thorough and free sweating bath without the aid of blankets, fire or steam, just take a three years' course in anatomy under Prof. Gere's instruction. Ladies, your complexions will be white when you get through. If we do not remember the whole of Gray's anatomy and the origin and meaning of every Latin and Greek word found on its one thousand pages it is not his fault. The young men say his explanation of the

manner in which arteries and capillaries inosculate, is one of the most delightful lessons they ever learned. "To put mouths together. To kiss." That's it! We are sure even old people can remember that lesson without trying.

Prof. Mead, the alchemist, came in one cloudy day with sunshine in his voice and manner, telling us to not try to learn it all; we *could* not if we *would*, but to grasp and fit a few first principles. It was not the amount of knowledge, but the wise use of a few facts well chosen and thoroughly proved that would aid us in our professions. We were not to strive to know all things, but to learn how to find them in the shortest time.

Prof. Logan lead us step by step from atom, molecule, and mass, on and out into that wide field of scientific investigation wherein are found organic chemistry and quantitative analysis.

Prof. Clarke came to us from Canada, crisp, incisive, scintillating as a northern snow-drift on a sunny morning. Warm-hearted and gentle, when you know him, as a day in June. Original, impressive, thorough, a successful teacher from the first day.

Prof. Cornwall opened our eyes to the beauties of ophthalmology, laryngology and otology. Next after anatomy, the study of the human eye is one of the most fascinating and attractive. By the aid of the mirror and ophthalmoscope to be able to look into the depths of the human eye, and there read, a record that cannot lie, of the present condition and past history of the patient, then to be able to prescribe simple remedies that shall restore hope to the hopeless. This alone amply repays us for all the toil and cost incident to our college course. How to use the laryngoscope and examine and treat the larynx and vocal cords, the pharynx and the posterior nares; how to illuminate and examine the ear, diagnose, and treat it intelligently and successfully,—these are the lines of thought opened up to us by Prof. Cornwall.

In Materia Medica, and Theory and Practice, Prof. Webster has given us line upon line, precept upon precept. To him we have gone with knotty questions, sure of brotherly sympathy and wise counsel. Patient, clear, concise, he has the respect and love of the class.

Prof. Campbell, in medical jurisprudence, taught us how to collect our fees, and how to deport ourselves as experts in courts of law, but not one hint did he give our young men

of how to court the girls. Strange so important a lesson should have been omitted! However, the Professor will be remembered by those he passed last year, because he wrote opposite our names one hundred. We challenge the juniors to do better than that if they can.

Classmates, college days for us are over. We are glad and grieved. Glad because we have need of contact with the world. It is time to so relate ourselves to the people that we may put into practice newly acquired facts and principles. We are grieved because we know there is so much of practical value yet unlearned. Thanks to our professors that we have the magic key which unlocks many mysteries. We have learned how to delve and dig. We expect to find the golden heart of the mine. When academic school-days ended we were timid. The crucial test of contact with the verities of life had not been made. Our teachers said, "Go ahead, win success. Integrity, perseverance and industry always win." Most of us have proved the truthfulness of their counsel.

Then, we graduated to participate in the ordinary affairs of life. Now, we go out to wage war against disease and death. Then, we were curious observers of style and fashion. Now we shall see the past and the present, written as with a pen of fire upon the faces of men and women who walk the streets. We have learned to read and interpret their histories. The sins of the fathers, to the third and fourth generations, are unfolded to us, deeply graven, as with a diamond point all over the faces and forms of innocent little children. How best to counteract these tendencies, and help men, women and children to rise toward health and a vigorous, joyous life, is henceforth to be our work.

Book study alone has been a hard and tiresome master. The study of living cases and reference to the experience of others as recorded in books, will be a delight. We are not to be bound by books. It is our privilege to advance, to see farther, to analyze closer, deduce conclusions finer and clearer than many who have preceded us. In view of these things, our professors have said, "Go ahead; be studious, thoughtful, sober, in your right minds. Think, reason; be watchful, careful, attentive, courteous and kind, and you will succeed."

Experienced physicians and surgeons, appointed by the State Society to be present at our final examinations, said at the close, "Do not fear; efficient, conscientious work always commands success."

Classmates, shall we now and evermore maintain the dignity of our calling? Shall we so live in our individual personal lives as to merit the approval of our own inner selves, and the approval of all noble men and women?

MEDICAL FORMULAS.

BY J. W. STOCKTON, M. D., WASHINGTON, PA.

ACUTE INFLAMMATORY RHEUMATISM.

R. Acidi salicylici.....
 Potassii acetatis.....ā ā 3 iii. (3 dr.)
 Syr. simplicis.....
 Aquæ.....ā ā 3 ii. (2 dr.)

M. Sig.—Teaspoonful every second hour.

For external use:

R. Aquæ ammoniæ.....3 ii. (2 dr.)
 Copaibæ.....
 Chloroformi.....ā ā 3 i. (1 dr.)

M. Sig.—Apply in absorbent cotton five minutes each hour for six hours.

Use potassæ bicarb. in 15 grain doses every three or four hours alternating with the first prescription.

HABITUAL CONSTIPATION.

R. Socotrine aloes.....1 to. 3 grains.
 Sulphate of iron..... $\frac{1}{4}$ "
 Extract Hyoscyamus.....1 "

M.—Make into pills. M. Sig.—One pill at bed time.

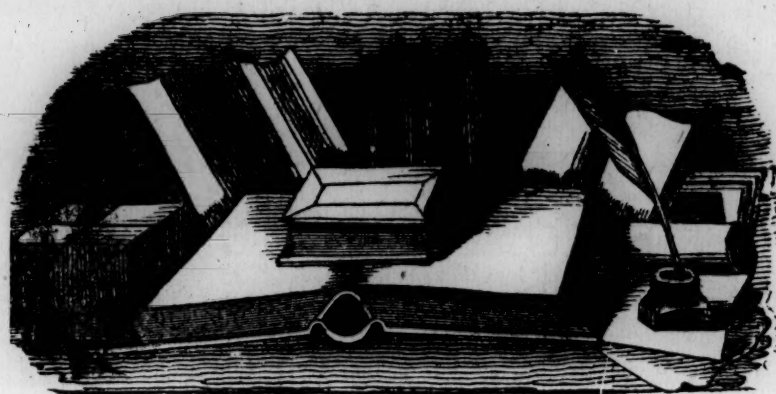
N. B. Reduce aloes as the case improves, or:—

R. Cascara sagrada, 15 or 20 minims in good liquor thrice daily.

GOOD ALTERATIVE.

R. Tinct ferri chloridi.....3 ss. ($\frac{1}{2}$).
 Acid. acetic. dil. 3 i. (1).
 Liq. ammoniæ acetat.....3 ivss. ($4\frac{1}{2}$).
 Tr. aurant. cort.....3 iss. ($1\frac{1}{2}$).
 Glycerine.....3 ss. ($\frac{1}{2}$).

M. Sig.—Tablespoonful, largely diluted, two or three times daily.



EDITORIAL.

TO SUBSCRIBERS.—A single pencil mark across the margin opposite this note is a receipt for the present volume. It should appear in the issue following the sending of the subscription price. A *cross* instead denotes that the subscriber has neglected to pay for his last volume. Send postal orders if possible. Price one dollar per annum, in advance.

A Lugubrious Prospect.—The old saying: "Once a man twice a child," contains more than a moiety of truth. It is not only proverbial but a physiological fact that as men enter their dotage they live more in the past than in the present. To some of them the habit of disparaging every present condition when comparing it with that of the past, grows to be a mild sort of mania. By these the good old days of the stage-and-four, and the grandmother's spinning-wheel and hand-loom, are viewed with regret when compared with the degenerate railroads and factories of our time. "Alas, for our grandfathers' days!"

We hope none of our readers will impute to us an inclination to refer in disrespectful terms to elderly people; we believe we entertain an abiding reverence for age, but this need not blind us to a fair-minded consideration of some of the effects of senility upon the intellectual powers.

The profession numbers many aged members who are progressive and abreast of the times, but they are so from the fact that they have been life-long investigators and have allowed no dim vista to intervene between the practice of the past and the present status of medicine. They have witnessed the entire growth of the child, and its former

charms have seemingly in no wise depreciated. Different is it, however, with those who halted long ago, and like Lot's better-half have spent their later years in gazing backward.

Several months ago one of our exchanges published an article on modern eclecticism as compared with the genuine good old Simon-pure eclecticism of other days, in which the writer evidently believed, and would fain have made his readers believe, the eclectic school was going to "sticks" at a very rapid pace. To him the departure made from Beach was a piece of sacrilege scarcely pardonable. We will wager our entire amount of railroad bonds that the writer is in his dotage.

A later number of another exchange contains an article on safe *versus* powerful medicines, which runs in the same strain. The writer labors to show that the practice of modern eclectics is all awry, that they are now no longer a successful class of practitioners, that they have lost their distinctiveness as a school, and are progressing backward—going to medical perdition. He is married, so to speak, to the good old practice of carrying on the professional campaign by cursing poisons and lauding the practice based on the principle of sustaining the vital forces. He informs us that the use of *safe* remedies employed for this purpose, and the discarding of all dangerous and destructive drugs is the only proper course to pursue in order to make our school a success.

We have neither time nor inclination to answer these childish articles. We simply refer to them as curiosities not however—by the way—by any means rare. They contain no arguments of sufficient force to entitle them to that much notice. They belong on the same shelf with the doctrine that the world grows more wicked as it grows older, and that finally the *ultimatum* will be a burning lake of sulphur, where all but the elect will fry eternally.

The fact is, and every unbiassed observing medical man knows it to be so, that taken as a whole the practice of

eclectics is far in advance of that practiced by members of the school twenty-five years ago, and, moreover, it is continually improving, being constantly reduced to more nearly a scientific basis.

That allopathy has crawled from its old ruts as regards therapeutics and is becoming more liberal and progressive is not a fit cause for regret. It is essential to our existence as a separate school of medicine, that we be stimulated constantly to progress, and no better stimulation could exist than the fact that other schools are adopting our remedies and methods. We must learn to improve on these, to do still better. That the schools are nearer together now than then is not because eclectics have deteriorated, but because all have become more liberal and more progressive.

Compare the treatment and resources of a quarter of a century ago, as illustrated by the teaching of the textbooks of that time, with methods employed now. Evidently there is a certain crudity, however successfully the practice of eclectics may have compared with that of other schools, which has since been very much improved upon. Compare the surgery of old eclecticism with that of modern time or the knowledge possessed by the average practitioner of then with the eclectic of the present. Place one of these mourners by the side of a modern eclectic and subject the pair to a quiz. We tell you, Uncle, you have failed to grasp the present situation.

We do not wonder that these articles are written; the world is full of men of hypochondriacal tendencies, but we do wonder that live editors should allow them conspicuous places in their periodicals. Facts are facts, theories are theories. The "John Anderson, My Joe" sentiment is all good in its place, but we object to the soft insinuation that modern eclectics have lived in vain.

Many venerable eclectics have grown gray in marching along with the tramp of progress, and to-day stand foremost in the ranks. We point to them with pride; we honor

them. We are glad to welcome them to our counsels. We know they possess too much intelligence to write such articles as those referred to. The dissenters are the "mossbacks."

Faradism in Disease.—Probably in no condition is faradism more applicable than in the treatment of nervous dyspepsia. Practitioners who once learn the advantages to be derived from it will not be likely to adhere to the uncertain and unsatisfactory results of drug action alone. We would not be understood as referring disparagingly to the use of drugs in the treatment of this disease, nor would we discourage further investigation of drug action as applied to its cure. Let all be learned that can in this direction; but we are confident that at the present status of therapeutical knowledge, no other one agent offers so promising results as electricity.

We have known the unpleasant sense of oppression at the epigastrium, the dyspnœa, the inclination to yawn, the bloated sensation, the accumulation of gases, the craving, unnatural appetite, the distress following eating, as well as the headache and other complications, to disappear rapidly under the influence of faradic treatment alone. However, it might be well to impress the mind of the patient by the administration of some harmless agent. Often some indicated remedy may be appropriately administered as an adjunct.

How will we administer faradism in a case of nervous dyspepsia? The same principles apply which have already been laid down. In atony, which will usually exist, we desire to bring the organ under the influence of the negative pole. This may be accomplished by applying the positive to the vertebra prominens, or between the shoulders, and the negative to the epigastrium; thus the solar plexus and its branches may be brought under the direct influence of the current.

Both poles may be allowed to remain stationary for four or five minutes, the current being gradually strengthened, until the stomach may be felt contorting under its influence.

Then the negative should be passed transversely across the epigastric, hypochondriac, umbilical, lumbar, and indeed over the entire abdominal region for five minutes or more. The current should be sufficiently strong to cause active contraction of the abdominal muscles.

At the end of this maneuver, attach the tongue-plate to the positive conductor, and instruct the patient to sit on the negative sponge, either with the nates bared, or only covered by some thin fabric which may be readily moistened so that the contact may be easily made. Now, having removed the attachment of the positive cord from the battery, instruct the patient to put the tongue well out, and apply the tongue-plate firmly to it, then attach the cord to the battery. This will obviate an unpleasant shock, which would be communicated to the tongue were the connection made upon that organ. The current may now be gradually strengthened, and allowed to continue for two or three minutes. In this way the entire intestinal tract may be invigorated, and good results will certainly follow, if there be no organic disease to interfere.

The A. D. posts will usually afford the proper current for these variations, though if the battery be in extra condition, the A. C. current may be strong enough for the tongue.

In finishing this treatment, the general tonic treatment already described may be employed. Drugs should be administered in small doses here, and with some special object in view, or else they had better be omitted entirely. Proper instructions regarding diet also suggest themselves, though very soon the unnatural cravings of the dyspeptic will cease, under this treatment.

Sometimes the epigastrium will be tender on pressure, and the use of the negative will be attended by pain and followed by considerable distress. Here we should employ the positive over the epigastrium, and the negative at the vertebra prominens, reversing for the purpose of deriving the soothing influence of the current; though the tongue-plate should always be used by being attached to the positive.

In using this, instruct the patient to avoid bringing the electrode in contact with the teeth, as sharp twinges attend such accidents. The plate should be pressed firmly down on the organ, as a light touch is attended by unpleasant stinging sensations.

The Postponing of Old Age.—The ancient alchemists delved with two objects in view, viz., the discovery of a secret by which the baser metals might be converted into gold and silver; and for a means of prolonging human life.

Fatalists and believers in special providences might regard this latter object as futile, and so indeed it proved in the light of alchemy; but in the present age there are those who assert that senility can be postponed, and life lengthened by the rational application of properly adapted measures.

It is a law of nature that all organisms are destined to pass through certain cycles of existence, through periods of growth and decay, at the end of which the vital powers succumbing, life ceases, and the elements of the bodies pass into the inorganic world, to assist, indirectly of course, oftentimes in nourishing succeeding generations. But there is no doubt that the length of these cycles is very much modified by circumstances in individual cases, and science may yet be able to accomplish the prolonging of the average of human life perhaps a score of years.

W. O. Dawson is the author of an article, quite extensively quoted since its first appearance, in which it is undertaken to lay down rules which may guide us to this result. Though some exceptions may be taken to the propositions contained therein, the article certainly is fruitful in the suggestion of not unreasonable possibilities.

The simplest form of organic life is gelatiniform. The first organic material which existed in the fucoids of the Archean age were of this nature. Osseous structures came considerably later in the scale of development. Embryonic life begins in the gelatiniform state in the human individual, and

the tendency throughout existence is to approach continually nearer the osseous state.

The fontanelles fill up early; cartilaginous portions of the skeleton ossify; the epiphyses and apophyses become welded to the shafts, and steady progress is made in this direction up to the twenty-fifth year. Now for a time osseous formation may not be so active, yet it continually proceeds in the gradual welding of the sutures, until in advanced life the cartilages of the larynx, the rings of the trachea and orifices of the heart, the ensiform appendix, and numerous other parts become the seats of bony growths. It would seem that the tendency in late life is to the deposit of earthy material in the tissues, at the expense of animal structure, the bones becoming exceedingly brittle from want of proper amount of organic material.

Closely allied to ossific formation is the occurrence of calcareous deposits, which contain the earthy portion of bone without bone organization. As age advances, this encroaches upon organs vital to the continuation of existence. An important result of calcareous deposit, is the influence exerted upon nutrition. The heart and arteries lose their integrity of structure and function, becoming lessened in calibre and lacking in that elasticity which earlier enabled them to effectually transmit the proper impulse to the capillaries. Thus the tissues become enfeebled and lose their power of resisting disease-producing causes. Calcareous deposits about the prostate in old men or in the walls of the *bas fond* in women, occasion irritation, often resulting through extension of sympathy or reflex disturbance in disorganization of vital parts of the urinary apparatus, as when degeneration of the histological elements of the tubuli uriniferi or malphigian tufts, result in diabetes, albuminuria, or in that complete destruction known as "surgical kidney."

The familiar example of senile gangrene, the result of calcification of the femoral artery, might also be mentioned, wherein the lower extremity becomes gangrenous, and finally

death succeeds from obliteration of the channels of nutrition.

Many foods contain the phosphates and carbonates in considerable quantity, in fact it would be impossible to find foods capable of sustaining life for any great length of time which did not contain them, and though judgment in the selection of diet might be of advantage, it could not entirely do away with these elements with safety.

Not to enter exhaustively into the details of this subject, we may say that it has been proposed to prevent calcareous deposits by the administration of an agent which will hold the phosphates and carbonates in solution until they are washed from the body by the excreted fluids containing them, the agent proposed being dilute phosphoric acid.

Were chemical activities the same within as without living bodies, the proposition would be unobjectionable; but when we recollect that no purely chemical action occurs in living tissues with safety to those tissues, not modified more or less by vital activities, that chemical changes within the living body are essentially chemico-vital changes, we may conclude to wait a more positive decision, as demonstrated by actual experience before accepting the doctrine as sound teaching. Moreover, phosphoric acid is capable of seriously disturbing the economy—of producing abnormal conditions of the nervous system, and thus proving a cause of shortening, rather than prolonging life. In administering chemical agents as solvents of the deposits of old age, then, we should recollect that while Charybdis lies upon the one side, Scylla threatens upon the other, and beware lest the attempt at benefit prove disastrous in result.

The deposition of calcareous material is not alone the occasion of senility. The cycle of existence terminates with a cessation of the formative force, and in advanced life this holds but a feeble sway over elements which in earlier life it moulds with facile hand. Therefore the question may be fitly asked, "Is not calcareous deposition the result rather than the cause of the failing vital activities?"

Certain objections exist to the diet recommended by Mr. Dawson for the least amount of calcareous deposition. Among the meats recommended in preference to beef, as containing a less amount of the phosphates and carbonates, is the article veal, against which the objection may be made that it is more indigestible than beef, and possesses less nutritious qualities, unfitting it for diet for the aged. It might be well also to note that fruits, which he also recommends as being adapted to the prevention of calcareous deposition, and a proposition which is pretty generally conceded, often disagree with the digestive powers of aged people, provoking such disturbances as preclude their use. However, when agreeing, they may well constitute a portion of any properly regulated diet, when a fair degree of health is prevailing.

We do not dissent from the views of Mr. Dawson simply for the satisfaction of caviling, nor for the sake of argument; we only desire that the subject shall be viewed impartially, and from an unbiassed standpoint. On the whole, we are glad that attention has been called to this important subject, and we confidently predict some good as the result.

The article referred to will appear among our reprints.

The Puritan Stock Deteriorating.—An exchange volunteers some information regarding the decrease and deterioration of the Puritan stock, which contains a certain amount of truth, and possibly a little error.

“That the Puritan stock has deteriorated, there is no doubt. At the present rate of deterioration it is only a question of time how soon it will disappear. Sixty years ago a Yankee family usually consisted of six to ten children; a generation later the number had declined to three or four; at present the number of children ranges from none to three—usually one or two. The causes of this deterioration lie on the surface, and the most fruitful one is the great increase of wealth. In the old times, when wealthy families were the exception, large families of vigorous children were the rule among the native-born New Englanders. Wealth has brought idleness and effeminacy along with it, as it always does. The rule

is almost universally true that wealthy families have few children, and they feeble and spindling. In poor families they swarm. Having wealth in profusion, there is no incentive for women to work. Having no necessity to labor, the women have no muscle or physical strength, and, not having those essentials of health, they become consumptives and dyspeptics, or weak, flaccid, nervous creatures, who are not fit to have children, or if they have them, give birth to feeble little infants who speedily die off.

"More than this, the possession of too much wealth develops a dislike for children, as those small incumbrances involve nursery cares, constant attention, and anxious responsibilities which interfere with the pleasures of opulence such as society patronizes, European tours, concert and opera going, wining and dining, and the thousand and one frivolous inanities which make up the life of most rich women of fashion. In a wealthy woman's sphere, devotion to the demands of dress, fashion, and etiquette is more imperative than devotion to children, the result being that one or two children at most are the rule in families which two or three generations back were large enough to absorb nearly all the Scriptural names that are euphonious."

We are not so sure that wealth is the cause of the effeminacy and physical degeneracy noticeable among Americans. Our forefathers and mothers were better capacitated than we to endure the toil and privations of pioneer life, and they devoted themselves to the clearing off of the forests, the breaking of the soil too vigorously for the physical good of their descendants. It is a principle of biology that where vitality is expended in one direction it will be lacking in another. It is generally conceded that propagating male animals must be kept for that special purpose in order to produce vigorous stock, and it would be well if both sexes were thus preserved. It would be as unreasonable to expect vigorous progeny from exhausted, overworked men and women as from the lower animals under those circumstances. When, then, we take into consideration the immense strain upon the energies of the American people from the high pressure mode of life practiced, it is little wonder that the stock is deteriorating physically.

To these causes we may add that of climate, which is in no degree as favorable to longevity as is that of the home of our English cousins. It has even been asserted that the American stock on this account would in time become extinct but for the influx of the foreign element.

The Treatment of Diabetes Mellitus.—Authorities differ as much in the therapeutics of this disease as in that of any other in the entire vocabulary. The pathology being somewhat obscure, its management has been largely empirical and almost universally unsuccessful. A few remedies have been found to exert a favorable influence over the arrest of the drain upon the system. They may effect a cure in a few cases.

We have little faith in that plan of treatment which proposes to restrict all articles of diet containing sugar or starch. It is not probable that the cause of the disease depends upon any such excess, and if the ingestion of sugar is attended by the presence of more than the usual quantity in the urine, it is no indication that the sugar is operating injuriously, but simply that some of the ingested sugar is added to the supply originating as a result of disease. We have tried this plan of dieting with unsatisfactory results, and would say that while it might be well to think of the subject and see that the patient is not inordinate in the use of saccharine or starchy food, restrictive injunctions with regard to particular articles of diet rich in sugar or starch will not usually be attended by appreciable results.

The milk diet treatment of Dr. Donkin certainly deserves more credit. This consists in the use of an exclusive diet of skimmed milk, beginning with four or five pints daily at first, and gradually increasing until five or six quarts are taken daily. Care should be taken not to distend the stomach with large quantities, the milk being taken frequently and in small amount at a time. The milk should never be boiled.

Phosphoric acid has been accorded considerable credit in this disease. In appropriate quantities it probably acts as a nourisher of the nerve centers, and where the malady originates from lack of proper nervous supervision of the digestive and assimilative processes, it doubtless offers better results than any other drug yet found. Care should be observed not to unpleasantly disturb instead of properly stimulating and supplying the debilitated parts. Because a little will do good it is not a reason that more will do better. This was an old idea exploded some time ago. The very remedy which may effect a cure in appropriate quantities may operate disastrously if recklessly administered as regards dose.

Phosphoric acid does not act directly on the kidneys themselves, but seems to exert a remarkable control over the composition of the urine, being well adapted to those derangements in children where there is milky urine voided, as well as in both diabetis insipidus and true diabetis (diabetis mellitus). It has also been found to act very favorably in albuminuria, as well as in certain other renal difficulties.

Another agent which promises something in diabetis is the nitrate of uranium. It is especially in those cases depending on digestive derangements that this remedy seems best adapted. It has been known to accomplish some surprising results, though it should not be regarded as a cure-all, by any means.

Calcareo Carbonica in Chronic Coughs.—Some forms of chronic irritation of the respiratory passages obstinately refuse to yield to ordinary remedies, and yet may be relieved. We believe the trituration of oyster shell, prepared by homeopathic pharmacists, answers the best of purposes in many of these cases. We do not pretend to say how it does the work, any more than we know how lobelia, or sanguinaria, or ipecac accomplish good work in more acute cases, but we do know that persistent use of this remedy has been followed by surprising results in a number of cases which seemed almost hopeless. We have known it to cure a

cough when there had been repeated pulmonary hemorrhages, and when consumption had previously carried off members of the family.

In that debilitated condition denominated asthmatic bronchitis, or bronchial asthma, where there is constant catarrhal exudation with cough and hectic fever, this remedy often accomplishes wonders. It possesses a special affinity for the respiratory mucous membrane, and seems to supply what is needed for its restoration.

We would advise a trial of this agent in obstinate coughs which resist the action of ordinary remedies. We cannot promise that it will grow new lungs, or that one or two doses will cure a long-standing cough, but we believe it will do more in chronic coughs than any other one remedy known. We usually employ the third decimal attenuation in one or two grain doses, repeated three or four times a day. It may be obtained at any homeopathic pharmacy.

Country physicians may obtain an ounce of the first decimal, and carry it up themselves, using one part starch to two of granulated sugar as a vehicle, thus multiplying the bulk a hundred times. The average prescriber of crude drugs will find some difficulty in reconciling his mind to such a dose of a seemingly inert substance, but trial will soon convince him of its potency.

Home For Invalids.—We respectfully solicit the influence of those of our readers sending patients away for change of air, in favor of The Home in Berkeley. This institution is under the supervision of two estimable ladies, one of them a graduate of our college, and both of many years' experience in nursing and hygienic practice.

Berkeley is pleasantly situated among the foot-hills of the Contra Costa range, and commands a fine view of the bay, the Golden Gate and the old Pacific beyond, as well as of San Francisco and Oakland. An air of classical refinement pervades the surroundings here, for it is the seat of

the State University, besides a number of private institutions of learning. These, with many elegant homes, surrounded by choice fruits and flowers, such as only California can afford, constitute a pleasant suburban village, within a few minutes ride of either city.

When ordering sea air for invalids, remember this place where competent nursing and a comfortable home can be had at reasonable rates.

Sexual Neurasthenia.--Considerable attention has recently been attracted to the subject of impotency and remedies for its relief. Coca, damiana, aristolochia serpentaria, phosphorous phosphoric acid, staphisagria and cantharis have their several advocates. Doubtless each is good in its place. Electricity probably excels them all where sexual neurasthenia is purely a result of nervous debility. But here we must expect rest to be an important curative factor. It should be understood that a special cause often underlies these cases, which must be removed before nerve tonics or stimulants will have any value. We must have a better analysis of individual cases when prescribing. Each case requires its appropriate treatment, and often this will not consist in the employment of drugs. No physician who is not intimately acquainted with the anatomy, physiology and nervous sympathies of the male reproductive apparatus as well as the surgical disease to which it is liable, is competent to rationally treat sexual neurasthenia in the male.

NOTES.

THE Announcement of the California Medical College for 1884-5 is now out, and will be sent to any address upon application to D. Maclean, M. D., 405 Powell Street, San Francisco.

IODOFORM in erysipelas has been used with most satisfactory results by Mr. C. Clark Burnham (practitioner). He paints the inflamed skin with iodoform-collodion, one to ten, claiming that it at once alleviates the burning pain, and promptly arrests the progress of the disease.

WE are in receipt of a chart intended as a guide to the practitioner in urinary diseases, which will doubtless serve as a convenient means of reference, when posted in the office. All physicians, however, in this day, should have the leading points of urinary analysis so committed that a chart would not be necessary. This is offered as a premium to each subscriber to the *Medical World*, 401 South Eighth Street, Philadelphia, Pa.

WE always entertained a certain amount of respect for Judas Iscariot, for, though despicable the part he played, he but fulfilled the designs of an over-ruling power while his inner nature revolted, and he possessed principle enough after acting the fawning hypocrite to betray his best friend, to go and hang himself with a strong rope. Some of his imitators at the present time have not so much principle. They pander to the impulses of the fiend which possesses them without even the temptation of a bag of coin, and without a pang of remorse. Iscariot would be a prince among such creatures and his friendship much to be preferred.

THE methods of a certain new medical institution, not four thousand miles away, are unique, and we hope for the credit of similar institutions peculiar to it alone. The instruction afforded by our College is represented as being inconsequential and superficial, yet one course of lectures here are counted equal to two of its own when bidding for matriculates. O Consistency, O Consistency! It fondles and toys with the chin of the outside student in a manner almost irresistible.

"Oh walk into my parlor said the spider to the fly."

Saccharum lactis, taffy crudem!

H. T. WEBSTER, M. D.—*Sir*: Inclosed find postal note for one dollar, in payment of CALIFORNIA MEDICAL JOURNAL for one year. June number of the Journal we have just received and think Prof. Campbell's article, "Medical Prejudice," well worth price for one year. We are graduates from "Bennett" in Chicago and located in a town booming with eclecticism. Two of our "regular" brethren have held sway here for thirty years and their fossilized remains are yet occasionally seen upon the streets.

Wishing success to the California Medical College, we are, fraternally, yours.

DRS. * *

AMONG the lost arts in medicine may be counted the re-plantation of teeth. Nearly two hundred years ago teeth were extracted and replaced with success. Since Hunter's time the practice fell, for unaccountable reasons, into disuse, until it was revived by the Englishman, Coleman, some decades ago. The interest in this operation seems to be increasing of late among European surgeons. Some time ago Prof. Maas operated on three patients successfully. He pulls the diseased tooth in the usual manner, scrapes out the cavities, removes the products of inflammation, saws off diseased roots, disinfects the tooth in 1-10 per cent. solution of bi-chloride of mercury, fills the cavity with one of the usual amalgams, and replaces the tooth. The patient is fed a liquid diet for a week, by which time the healing process is completed. No anæsthetic is used in the operation. Reparation takes place by ossifying granulation without pain, and the replanted teeth sit firmer in their sockets than the original ones.—*Ex.*

BOOK NOTICES.

HOOPER'S PHYSICIAN'S VADEMECUM. Revised by Wm. Augustus Guy, M. B., Cantab, F. R. S., Fellow of the Royal College of Physicians, late Professor of Forensic Medicine, and Hygiene, King's College, London; Consulting Physician to King's College Hospital, etc., etc., and John Harley, M. D., London, F. L. S., Fellow of the Royal College of Physicians; Honorary Fellow of King's College, and late Physician to the London Fever Hospital; Lecturer on General Anatomy and Physiology, and physician to St. Thomas' Hospital. Volume I, published by Wm. Wood & Co., 56 and 58, Lafayette Place, New York.

This is the May number of Wood's Library for 1884. We have examined it critically, and find it a commendable work for physician and student. For the student especially it affords ready reference on many points which would require extensive reading and search in more voluminous works.

The amount of information furnished is worth much more than the cost. If the physician who smokes his cigars and takes his cocktails would "swear off" and invest the funds in Wood's Library, reading each volume through carefully, as received, we are sure the profession would average a better standing. Fifteen dollars per year pays for twelve volumes, on subjects of importance, usually by authors of established reputation.

PRACTICAL MANUAL OF OBSTETRICS. By Dr. Verrier, Lecturer on Obstetrics in the Faculty of Medicine in Paris. Fourth edition, revised and enlarged. First American edition revised by Edward L. Partridge, M. D., professor of Obstetrics in the New York Post Graduate School, published by Wm. Wood & Co., 56 and 58 Lafayette Place, New York.

This is the April number of Wood's Library for 1884, a work of nearly four hundred pages, presenting the subject of obstetrics in a comprehensive manner, from the anatomy and physiology of the female organs of generation to the management of early infancy. It is finely illustrated and substantially bound. Such a work would ordinarily cost from three to five dollars. In this form its cost is \$1.25.

DRUGS AND MEDICINES OF NORTH AMERICA. A quarterly devoted to the Historical and Scientific discussion of the Botany, Pharmacy, Chemistry, and Therapeutics of the Medicinal Plants of North America, their Constituents, Products and Sophistications, by J. U. & C. G. Lloyd, 180 Elm St., Cincinnati, Ohio.

Through some cause we did not receive the first number of this publication until too late for notice in the June number.

The subject of indigenous medicines, so far as the actual acquaintance of the physician with them is concerned, is one that was too much neglected for years. Within the last decade, principally through the efforts of Prof. Scudder, attention has been directed to this subject by eclectics, with appreciable profit. While a rural practitioner, we learned to place the greatest confidence in saturated tinctures made in the office from freshly gathered products, covered with pure alcohol, the vegetable usually containing enough water to answer the purpose of a diluent. The process was very crude, but the results were highly satisfactory, the remedies seldom failing to afford response, if properly prescribed.

This work will furnish many important hints to aid the country practitioner, as well as fortifying the city practitioner against the imposition of worthless drugs, sophistications, etc. The therapeutic department is represented by some of the foremost American writers on this subject, and cannot fail to prove of profit.

The mechanical execution of the work is fine, and when completed and bound in volumes of suitable size, it will constitute an elegant and valuable addition to the physician's library.

SELECTIONS.

THE POSSIBLE SUSPENSION OF OLD AGE.

BY W. O. DAWSON.

IN bygone times those profound mystics and metaphysicians, the Rosicrucians, and still earlier, the alchemists claimed to have discovered the Elixir of Life.

They asserted that old age might be retarded, and life considerably prolonged by means of an elixir, preventing, or rather suspending physical decay. The celebrated English Rosicrucian, Dr. Flood, whose writings became famous, is said himself to have attained the century. Modern science has recently made more startling discoveries than even those of which the alchemists dreamed. The possibility of prolonging life has, throughout all ages, been deemed worthy of notice by great thinkers, among whose numbers the illustrious Bacon and Hufeland are enrolled. In the following article we shall endeavor to furnish our readers with the latest scientific knowledge relative to the possible suspension of old age. *Imprimis*—old age is of two varieties—premature, and that caused by the lapse of time. Premature age, as engendered by various mental and physical excesses, comes not within our present notice. The principal characteristics of old age, as demonstrated by anatomical research, are a deposition of fibrinous, gelatinous, and earthy deposits in the system. Every organ in the body during old age is especially prone to these ossific depositions. The earthy depositions have been found to consist principally of phosphate and carbonate of lime, combined with other calcareous salts, according to the researches of C. T. B. Williams, F. R. S. “That man begins in a gelatinous and terminates in an osseous (or bony) condition,” has been truly observed by a French physician. From the cradle to the grave a gradual process of ossification is undoubtedly present; but after passing middle life, the ossific tendency becomes more markedly developed, until it finally ushers in senile decrepitude. These earthy deposits in the various organs during old age materially interfere with the due performance of their respective functions

Hence we find imperfect circulation in the aged, owing to the heart becoming partially ossified, and the arteries blocked

with calcareous matter, interfering with that free passage of blood upon which nutrition depends, so the repair of the body naturally becomes impaired thereby.

Mr. G. H. Lewes, in his luminous work, "The Physiology of Common Life," truly observes: "If the repair were always identical with the waste, life would then only be terminated by accident, *never by old age*." Both Bichat and Baillie considered that the greater number of persons over sixty suffer more or less from arterial ossifications. When the heart's valves become cartilaginous, they consequently fail to propel the blood to its destination, this fluid being further obstructed by the ossified and contracted condition of the arteries themselves.

In youth, on the other hand, nutrition is perfectly carried out, there being no blockades to impede the circulating system upon the due performance of which physical reparation depends.

Bearing the above facts in mind, we plainly see that the *real* change which produces old age is, *in truth, nothing more or less than a slow but steady accumulation of calcareous matter throughout the system.*

It is owing to these depositions that the structure of every organ is altered, their elasticity giving way to senile rigidity. Blockades of various organs then commence, until, at last, one of the vital organs becomes impeded, causing death. The idea that old age was brought about by failure of the so-called vital principle has long since been discarded by science. Now in reality the *true cause* of gradual disintegration in the various organs is the fact that they become inadequately supplied with blood, upon which the renovation of their structures depend.

While speaking of calcareous and osseous degenerations, that eminent authority, Dr. C. T. B. Williams, F. R. S., observes at page 252 of his splendid work, "The Principles of Medicine," "This process is there given to be viewed as almost entirely of a chemical nature, consisting in the concretion and accumulation of calcareous salts, phosphate and carbonate of lime." The *causes* of old age bring, therefore, nothing more or less than ossific deposits. We will now proceed to elucidate the principal influences leading to the condition we have described.

Having arrived at the predisposing causes of senile decay, it yet remains for us to go still further, and seek out their

origin. The two principal sources of old age are fibrinous and gelatinous substances; secondly, calcareous depositions. According to the recent researches of Mr. De Lacy Evans, the origin of the former may undoubtedly be traced to the destructive action of atmospheric oxygen, and this proposition is demonstrated by the following argument:—

In the air we breathe, the relative proportions of oxygen to nitrogen are 22 to 78. Although oxygen is in far smaller bulk, yet it is not the most active element. Now, oxygen has an affinity for every other element except fluorine, thereby forming the oxides. Oxygen plays by far the most important part in those chemical changes constantly at work within the animal economy, life itself being but a constant waste by oxidation, and reparation by food. In the blood exists albumen and fibrine, themselves resolved into component elements—carbon, hydrogen, nitrogen, oxygen, sulphur, and phosphorus. Fibrine has been said to contain 1.5 per cent. more oxygen than albumen. Now oxidation converts albumen into fibrine, fibrine itself being but an oxide of albumen.

Although, unquestionably, fibrine nourishes the organs of our bodies by repairing their waste, *yet a great deal of this substance accumulates in course of time, lessening the calibre of the blood-vessels, and thereby causing their induration.*

It therefore follows that, as time goes on (old age), fibrinous and gelatinous depositions become noticeable. Consequently as fibrine is an oxide of albumen, so also is gelatine an oxide of fibrine, due to the action of oxygen on the fibrine deposited by the blood. A further effect of oxidation causes part of these substances to be decomposed, and subsequently eliminated through the kidneys as compounds of ammonia and urea. There is always a continual struggle progressing in our systems between accumulation and elimination. Thus it is that the fibrinous and gelatinous accumulations of old age are chiefly traceable to the chemical action of atmospheric oxygen.

The calcareous deposits next claim our attention, being proved by anatomical investigation to be peculiarly characteristic of old age.

In the human body water forms 70 per cent. of its aggregate weight, in fact there is not a single tissue which does not contain water as a necessary ingredient. Now water holds certain salts in solution, which become more

or less deposited, notwithstanding the large proportion eliminated through the secretions. Nevertheless it is only a matter of time before these minute particles deposited by the blood have a marked effect in causing the stiffness and aridity of advancing life. The reason why in early life the deposit of earthy salts is infinitesimal is simply because they have not had time to accumulate. It is the old kitchen boiler which is full of incrustations, not the new one, time not being sufficient for their deposit. M. de Cann proved by analysis that human blood contains compounds of lime, magnesia and iron, averaging 2.1 in every 1000 parts. This clearly demonstrates that in the blood itself are contained the earth salts, which gradually become deposited in the system.

Blood being made from the assimilation of food, it is therefore to food itself we must primarily look for the origin of these earthy deposits. Besides providing the requisite elements of nutrition, food contains calcareous salts, which upon being deposited in the arteries, veins and capillaries, become the proximate cause of ossification and old age. Mr. G. H. Lewes says with truth in his "Physiology of Common Life," "Moreover in food we are constantly introducing different substances which produce variations in the nutrition of the parts. The differences *accumulate* their influence in those changes named ages, and they culminate in the final change named death."

Having now traced the primary existence of calcareous matter *to food itself*, it is consequently a subject of no small moment to ascertain those varieties of dietetic articles containing these salts. As a matter of fact, everything we eat does contain them to a greater or less degree. The cereals have been found most rich in earth salts; so bread itself, the so-called staff of life, except in great moderation, assuredly favors the deposition of these salts in the system. The more nitrogenous our food the greater its percentage in calcareous matter; thus a diet composed principally of fruit, from its lack of nitrogen, is best adapted for suspending ossific deposits. Moderation in eating must ever be of great value as an agent for retarding the advent of senility. Large eaters more rapidly bring about these ossific deposits, owing to having taken more food into the stomach than it is able to utilize or excrete, the result being naturally a more rapid blockade. According to the researches of Mr. De Lacy Evans it would appear that the following articles of food contained least of

earth's salts: First, fruits (chiefly owing to their lack of nitrogen); second, fish and poultry; third, *young* mutton and veal. Old mutton and beef, from age, contain a large quantity of earthy matter.

It becomes self-evident, therefore, that living moderately and as much as possible on a diet containing a *minimum amount of earthy* particles is clearly most suitable in order to retard old age and thereby prolong existence. The most rational treatment with a view to retard old age is in the first place to endeavor as far as possible to *counteract* the excessive action of atmospheric oxygen; secondly, to retard the deposit of ossific matter, and as far as possible dissolve partially formed calcareous concretions. Distilled water and diluted phosphoric acid are believed by Mr. De Lacy Evans to have the desired effect. When considering their special action we cannot but fully coincide with him as to their efficacy in retarding old age by their combined chemical action. Now distilled water alone has a powerful action owing to its solvent properties, thereby dissolving and excreting the excess of earthy salts which otherwise would become blocked up in the system, gradually storing up those blockages which in time cause old age. The solvent properties of distilled water are so great *per se* that on distillation in vessels it actually dissolves small particles of them. Now the generality of waters contain more or less carbonate of lime, and are to be avoided, especially those from chalky soils, tending as they do to produce calcareous deposits. The action of distilled water as a beverage is briefly as follows: First, its absorption into blood is rapid; second, it keeps soluble those salts already existing in the blood, thereby precluding their undue deposits; third, it facilitates in a marked degree their eliminations by means of excretion. After middle life *a daily use of distilled water is highly beneficial* to those desirous of retarding old age, and it is also a useful adjunct for adverting stone in the bladder and kidneys.

Lastly, we have to deal with the special beneficial action of diluted phosphoric acid when mixed with distilled water and consumed *daily*. If well diluted with distilled water it is perhaps the most powerful means known to science for suspending old age. Diluted phosphoric acid possesses the following great merits: It prevents the accumulation of earthy salts and also facilitates their elimination. Secondly, by its great affinity for oxygen those fibrinous and gelatinous de-

posits previously alluded to are held in abeyance by its use. Thus by its *double* agency, combined with distilled water, we have a most valuable preventive against the *primary* causes of old age, which its daily use holds us in check. Hypophosphites are believed to exercise a like action, as on becoming phosphates through fixing the oxygen from the blood, undue oxidation (waste of the tissues) is to a great extent prevented.

To sum up shortly what has already been advanced, according to the teaching of modern science, the most rational and certain means of retarding old age are by avoiding all foods rich in the earth salts, and by taking *daily* two or three tumblerfuls of distilled water with about 10 to 15 drops of diluted phosphoric acid in each glassful. Thus are the inimical salts held in solution and their excretion daily effected. The means herein advocated have also another great advantage, viz., that they cannot possibly do any harm.—*Knowledge*.

SURGICAL DELUSIONS.

BY JOHN B. ROBERTS, M. D.

MANY surgical theories and procedures have become traditional, and are accepted as true and correct, merely because reverence for antiquity, or careless acceptance, has not questioned their right to be classed as surgical facts. The present age is an incredulous one, and demands accurate investigation of all such claims. The field of investigation is large, for progress has been retarded by the influence of theorizing writers, monochromatic vision, the example of non-seeing and non-looking devotees of the fetiches of surgical superstition and the convincing effect of a repetition of false statements. I shall select a few topics which have greatly interested me and concerning which I probably differ quite widely from many of you.

CHLOROFORM ANÆSTHESIA.

Many still cling to the delusion that chloroform is a safe anæsthetic, because they have never seen a patient die from it. Is one man's experience to weigh against the physiological, the experimental, the clinical experience of the whole world? Dare we employ chloroform, instead of ether, when recognized authorities state that in chloroform anæsthesia death occurs without warning in the hands of experienced

administrators; when some five hundred deaths have already been reported; when Schiff and Dalton reject it in physiological laboratories, because of its mortality; when the scientific grants committee of the British Medical Association assert that chloroform is a more dangerous anæsthetic than ether.

Adherence to chloroform in the face of such facts is criminal when circumstances permit ether to be obtained. The assertion that it is often impossible to produce anæsthesia with ether is the result of inefficient methods of administration. Ether, if given as chloroform is and should be given, is, in truth, a useless anæsthetic, but given properly it is efficient.

VALUE OF STYPTICS.

The belief in the necessity of styptics is a delusion less dangerous than that first mentioned, but is given more extended credence. Such agents are seldom, probably never, needed in general surgery to arrest hemorrhage. When ligatures, torsion or acupressure is not demanded, and such is seldom the case unless the artery is as large as the facial, moderate, direct pressure, applied in dressing the wound, is the only hemostatic required. Styptics often do harm, and, as they are not needed, they should be discarded.

FATALITY OF SMALL HEMORRHAGES.

There is much misapprehension about the quantity of blood that a healthy person may lose with impunity. Many who often look with equanimity upon a parturient woman losing a pint of blood from the uterine sinuses would be dismayed at a woman losing half a quarter of that amount during removal of a tumor. While not advocating needless waste of blood, and especially in patients suffering surgical shock, I assert that there is an unnecessary fear of blood spurting from a few insignificant vessels. The largest artery can be controlled by pressure not greater than is used for ringing the electric bell in your hotel. Hence there is always sufficient power in your fingers to obviate fatal hemorrhage until strings can be obtained and applied.

DANGER OF TREPHINING THE SKULL.

The dislike to make exploratory incisions in closed fractures of the skull evinced by some surgeons and the objection of others to trephining, and thus opening the diploic structure in open fractures, are delusions of a most disastrous tendency.

To wait until symptoms of cerebral compression or inflammation have supervened is to lose the most favorable opportunity for mechanical relief. Such a fabian policy is often followed by death. The treatment of open and of closed fractures of the skull should not be looked upon as very different since, with the present improved methods of dressing wounds, the successful issue depends almost entirely upon the cerebral rather than the cranial phase of the injury. If such fractures as are usually seen in the skull were not in proximity to the brain, the surgeon would consider them almost trivial. The feature of closed fractures that renders them so troublesome is the obscurity that accompanies them. I have for a number of years strongly advocated making closed fractures open ones by means of an exploratory incision, whenever there is a suspicion of the existence of depression or splintering. In open fractures operation to elevate depressed portions and get rid of splinters of the inner table thrust into the membranes should be undertaken rather than avoided. It is better to err on the side of action than that of inaction. Careful manipulation and proper dressings at an early stage are sources of less risk than is incurred by the surgeon who leaves unseen and unsuspected fragments thrust into the membranes or brain.

OPERATIVE DELAY IN STRANGULATED HERNIA.

A delusion of fatal issue is that leading to postponement of operative interference in strangulated hernia. Repeated attempts at forcible taxis and medical powwowing with temporizing measures have ended more lives than the use of the knife. Herniotomy done within twelve hours is almost always followed by recovery. Death is to be expected, however, if strangulation has existed for two or three days, and the gut has been bruised by violent manipulation in the endeavor to relieve the contraction by taxis. Moderate taxis under ether, a half day's treatment with cold applications and the internal use of morphia, and a second moderate attempt at taxis, followed, if unsuccessful, by immediate operation, is the sequence to be followed in strangulated hernia. When symptoms of strangulated hernia exist, the slightest fullness and tenderness in one groin over either of the rings is a sufficient localizing indication to warrant operation.

OPERATIVE DELAY IN ACUTE PHLEGMONOUS INFLAMMATION.

No insane delusion, no Spanish inquisitor ever caused so many hours of excruciating physical torture as the hallucination that acute abscesses and furuncles must not be incised until pointing has occurred. All the world knows that evacuation of imprisoned pus in phlegmonous inflammations means instant relief of the agonizing pain; yet how few of the profession early and freely incise such inflamed tissues unless they first see the yellow pus under the thinned skin or feel the fluctuation of the fluid in the abscess cavity. The pain is caused by the effort of the pus and sloughing tissue to escape. Is it not, then, more rational to make a free incision to-day than to wait till next week? Time and pain are both saved by early incision. If the cut be made before the pus has actually formed, so much the better.

Probably no form of abscess needs early and free incision more imperatively than that under the palmar fascia. Destructive burrowing of pus is prevented by this radical procedure, which also saves the patient many days of poultices and purgatory.

OPERATIVE DELAY IN MALIGNANT TUMORS.

Much bad surgery results from a delusive postponement of operative interference in malignant diseases. Instant removal is to be practiced in such cases provided the patient is deemed fit to stand the surgical shock.

NECESSARY FATALITY OF TRAUMATIC TETANUS.

That traumatic tetanus is of necessity fatal is a commonly held opinion. Proper treatment is sometimes neglected because of this belief in its hopelessness. That the prognosis is extremely unfavorable, I admit, but that cases of a severe type recover is undoubted. Chloral hydrate in full doses has given the best results; but I do not propose speaking of therapeutics at this time. I merely wish to impress upon the profession the fact that a fair number of cases of traumatic tetanus have recovered.

FATALITY OF PERICARDIAL AND CARDIAC WOUNDS.

The prevalent notion of the excessive danger of these wounds is delusional, at least in as far as it teaches that these structures will not brook surgical interference. The pericardial sac should be dealt with exactly as the pleural sac, by as-

piration, incision, irrigation and drainage according to the lesion. That simple puncture or aspiration of the heart itself is not accompanied by the expected risk to life has been pretty well shown, though I am not prepared to recommend its general adoption for trivial cardiac conditions.

SYMMETRY OF NORMAL LIMBS.

Another delusion still existing in many minds is that the extremities are usually of the same length. Clinical and anatomical investigation show that asymmetry in the length of normal limbs is of common occurrence. Therefore, measurements of the legs in cases of fracture are of little value, since it is impossible to know whether it is the femur of a long or short leg that is the seat of injury.

USEFULNESS OF TREATING VICIOUS UNION OF FRACTURES.

It is a fact, not sufficiently appreciated, that many cases of deformity, from imperfectly treated fractures of long bones, can be remedied by refracture. Over and over again have I seen cases of grave disability and deformity cured by the application of sufficient force to break the callus uniting the misplaced fragments. Five to six months is not too late to resort to this expedient for correcting what, otherwise, must be a life-long evidence of defective surgical attendance.

There are many other prevalent surgical delusions, such as, that bony union of transverse fractures of the patella and of intracapsular fractures of the femoral neck cannot take place; that chronic purulent discharges from the ear do not need active treatment; that hypermetropia and hypermetropic astigmatism can be properly estimated and corrected, without paralyzing the accommodation; that it is improper to perforate the nasal septum in cases of great deviation; that crooked noses are not amenable to treatment; that corneal operations and cataract extractions should be treated by cotton padding and bandages to the eyes; that fractures should be treated with carved or manufactured splints.

While an earnest advocate of conservative and of reparative surgery, I believe that when operative surgery is demanded it should be aggressive. Delay, indecision and insufficiency impair the value of much surgical work, and are often the legitimate result of a superstitious faith in delusive surgical dogmas.—*Buffalo Medical and Surgical Journal.*

**PLASTER OF PARIS SPLINT IN FRACTURE
OF THE JAW.**

BY LYMAN WATKINS, M. D., BLANCHESTER, OHIO.

ON the 19th of last September, John R., aged thirty years, a huckster by profession, was quietly riding one of his mules to water, when, suddenly—such is the uncertain temper of that useful domestic animal—the mule jumped, bucked, and threw him, winding up the circus by landing one hind foot in the prostrate rider's face. The man was carried into the house, and I was called in haste to attend him. Upon examination the lower jaw was found to be broken on the left side, just in front of the last molar tooth, a simple transverse fracture. The usual Howe splint was applied, but there was a troublesome slipping in of the anterior fragment of the broken bone, which was impossible to overcome with that splint. After trying several other varieties of splints with no better success, a plaster of Paris splint was put on in the following manner: Some fresh plaster was obtained, which was mixed up with water in a glass tumbler, a small quantity of salt was added to facilitate hardening. As soon as the plaster began to stiffen up a little it was poured into a muslin chin cup, and applied to the entire lower jaw, over which a thin cloth had been put to keep the plaster from direct contact with the skin. The fracture having been reduced, the plaster was held firmly in place until it hardened. This splint accurately fit the jaw, and made a hard, firm chin-piece, which was held securely in place by a leather chin cup with appropriate straps and buckles, constructed by an ingenious shoemaker. Teeth were luckily missing in the right place, and the patient was fed on liquid food through a tube. There was no more slipping. The splint was allowed to remain without change for three weeks, when, upon the patient complaining of it feeling heavy and uncomfortable, it was removed, and a lighter one of the same material, and in the same manner was substituted. This was worn for ten days longer, and then removed, the leather chin cup being continued a week or so. The result was all that could be asked, and there is now no evidence of the jaw ever having been broken.

There is nothing particularly new in this case except the

application of the plaster of Paris, which I never heard of being applied to this particular kind of fracture.

One extraneous fact in this case is that the patient was cured of a confirmed dyspepsia by the enforced six weeks liquid diet.

THE HEATONIAN METHOD OF RADICALLY CURING HERNIA.

I FEEL like urging upon professional brethren the importance of studying Heaton's operative procedure for occluding the inguinal canals to obviate the descent of hernial tumors. Inasmuch as I have performed the operation several times I assume to be competent to execute it understandingly, and to impart some useful hints in regard to the procedure. The "work" issued by Dr. Warren on the subject of hernia is designed to allure game into the author's nets. He seems to be talking to the unprofessional all the way through, and to such in the profession as know little about the anatomy of the inguinal region, and the pathology of hernia. Caution is enforced in disproportionate quantities; why not encourage the timid practitioner to undertake the operation with confidence? The teaching seems to be about thus: "Do not engage in such a dangerous operation till you have taken special instruction in Boston!"

Now, every doctor knows that when the inguinal canal is emptied of its hernial contents, the loose structures of the cavity may be readily injected with the contents of a hypodermic needle. The patient is on his back, and the point of the needle is entered over the external abdominal ring; a finger invaginating the scrotum comes to the needle, and directs it between the pillars of the ring. Then the implement is slid along the canal till it reaches nearly or quite to the internal ring—till it has traversed the entire length of the inguinal canal. Then as the forefinger of the left hand presses gently over the upper and inner end of the canal, the fingers and thumb of the right hand gradually unload the barrel of the implement as it is slowly withdrawn. This manœuvre leaves the astringent and irritant in the meshes or cellular tissue of the entire canal. The structures of the spermatic cord are not disturbed; and the entire procedure is about as easy as it is to administer a deep anodyne injection. There is no danger of throwing fluid into the

peritoneal cavity; there is no danger of too much or destructive inflammation; and there is no peril in the operation or in its contingencies. There is no call for a cork-screw nozzle to the hypodermic syringe; there is no necessity for a complicated gauge to regulate the quantity of fluid injected; and there is no sense in limiting the quantity to thirty or sixty drops. There is propriety in the injection of enough to provoke adhesive inflammation, as in the treatment of hydrocele. And I would as soon use Thuja as an infusion of white oak bark. I lately used the oak on one side, and Thuja on the other; and in the end I thought the latter accomplished the most adhesive or plugging action. The fluid extract of *Quercus alba* provokes a very light grade of inflammatory action, hence the occlusion provoked is not always firm and reliable. In all cases, after the operative procedure the integument over the injected canals should be daily anointed with vaseline, which carries a large proportion of tannic acid; and a light truss should be worn for weeks after the operation of injecting has been performed. The astringent ointment and the pressure of a truss pad will harden and consolidate the loose tissues of the immediate region of the occluded canal. The Heatonian method can not be trusted without the after treatment I have recommended.—*H., in Eclectic Med. Journal.*

EUCHLORINE.

PROF. GEORGE C. PITZER, M. D., in an article on direct medication, published in the *American Medical Journal*, March, 1883, gives a formula for a saturated solution of chlorine gas, or so-called euchlorine, prepared by combining chlorate of potassa and hydrochloric acid. After a year's experience with this agent I have faith to believe it to be the most valuable prophylactic constitutional remedy I have ever employed in the treatment of diphtheria. The manner of preparing it, recommended by Dr. Pitzer, has been both unpleasant and irritating to me, so in looking around for a better way I have devised the following method: Take a large mouthed pint bottle; measure and mark it externally, so you will know when it contains from one to eight ounces of water. Having fitted into the bottle a good stopper, take a file and perforate the cork so the small tube of a Deby rubber syringe will tightly fit—place a little sealing wax around

the tube to prevent the escape of gas. The instrument having been prepared as directed, place the other end of the syringe in a glass of distilled water; see that the bottle is perfectly dry, and place within it thirty grains of chlorate of potash, broken up in small pieces; then add from ten to twenty drops of hydrochloric acid, cork quickly and tie down. Shake gently, so as to bring the potash and acid in contact, and so soon as the bottle is filled with a greenish gas, gradually pump in four ounces, giving the water time to absorb the gas. The advantage of this method is that it conserves all the gas generated, and the amount of pressure that can be put on makes the water more readily absorb it. The dose to an adult will be a teaspoonful every one, two, or three hours, according to the severity of the case. Children, from one-fourth to one-half the dose, diluted in water. To get the full benefit of this remedy, the nurse should be instructed to cork tightly and keep in a dark place.--*T. Arthur Wright, M. D., in Kansas Med. Jour.*

VINEGAR IN POST PARTUM HÆMORRHAGE.

BY W. C. GREGG, M. D.

ABOUT ten years since, I attended a patient who had most violent *post partum* hæmorrhage, so severe, indeed, that I began to despair of arresting it. I had not ergot with me, and ice was not procurable. I directed the attendant to give a wine-glassful of pure brandy. The uterus, which was before flaccid, contracted instantaneously under my hand, and the bleeding ceased. On proceeding to give some more brandy, I discovered that the patient had been given vinegar instead of brandy. The effect was so marked, that I inquired of the old midwife who was with me, whether she had ever heard of vinegar being used before; she informed me that in her part of the country it was considered an excellent remedy, but that she had rarely, if ever, used it. When lecturing to a class of pupil-midwives shortly afterwards, I mentioned the case, and advised them most strongly to give the vinegar a trial in case of need. It seems to have escaped my memory until, about two years ago, the midwife at Queen Charlotte's Lying-in Hospital reminded me of my recommendation, and told me she had given vinegar repeated trials, and preferred it to ergot on account of its certain and instan-

taneous action. She was such a reliable and clever midwife, that I felt her testimony might be taken. Since then I have carefully questioned all my pupil-midwives as to its action, for until recently it was never used in the hospital. They all agree that, in their cases of hæmorrhage in the out-patient department, where they were allowed to use vinegar, hæmorrhage was arrested much more quickly than in the hospital with ergot. It was not until recently that I had a good test case; the patient belonged to a family of "flooders;" her mother and two of her near relatives had bled to death. As soon as the child was born, the mother began to flood. I expelled the placenta, and gave a wine-glassful of vinegar. The uterus, which was very flaccid and constantly dilating, at once contracted firmly under my hand; it did not again relax, although the hæmorrhage continued to a moderate extent. At the end of fifteen minutes I gave a second dose, about two-thirds of a wine-glassful. In both instances it was given pure without any water. This soon arrested the hæmorrhage, and the patient did well. I used no other means beyond holding the uterus, as I was perfectly satisfied with the result. I feel certain that I should not have obtained such favorable results with ergot. The action of vinegar is so rapid, that I refrain from using it or permitting its use before the placenta is expelled, for fear of making a retention of that body and making its removal difficult. From my own experience, and from the reports obtained from my midwives, pupil-midwives, and house surgeons, I can confidently recommend the use of vinegar in *post partum* hæmorrhage. It is a remedy, if not always at hand, at any moment procurable, simple and harmless, not open to the objection against ergot, which in the hands of midwives is very liable to be used to hasten delivery, nor to the serious disadvantage and dangers of intra-uterine injections. If further trials, on a more extended scale, confirm my experience, I have no hesitation in saying that vinegar will have to be regarded almost as the specific for *post partum* hæmorrhage.—*British Med. Jour.*

REVIEW OF THE PROGRESS OF MEDICAL AND SURGICAL ELECTRICITY.

BY WILLIAM R. D. BLACKWOOD, M. D.

Electrician and Neurologist to the Presbyterian Hospital, Physician to St. Mary's Hospital, etc.

GALVANISM has been successfully used in destroying the *Dracunculus*, or Guinea-worm, a terrible African pest. The worms, if broken off in extracting them, produce great irritation and sloughing, death resulting not unfrequently; but several cases are reported in the *British Medical Journal*, in which, galvanism being applied during traction on the worm, it came away entire.

Cutaneous faradization is recommended by Rumpf in progressive locomotor ataxia, where the initial symptom is atrophy of the optic nerve; but the writer has never had good effects from faradism in ataxia of any kind, so far as durable results are concerned.

Thompson, of Indianapolis, reports in *The Archives of Ophthalmology*, vol. xii. p. 183, an interesting case of cystic orbital tumor treated by electrolysis. The tumor protruded downward and outward from tendo oculi, behind the upper eyelid; and the motion of the eye was very limited; vision, $\frac{20}{80}$. A trocar and canula being introduced, 3iii of dark fluid were removed. The positive was connected with the canula, the negative applied over the temple of the same side, and a stabile current from a Stohrer of twenty cells passed for several minutes. Considerable inflammation occurred, and persisted for several days, but the cyst was destroyed, and in a month vision had risen to $\frac{20}{30}$.

Neftel has returned to electrolysis in treating malignant tumors, destroying them at a single operation. A platinum anode is plunged perpendicularly into the tumor down to its presumed point of implantation, and from three to five cathodes placed on the periphery of the tumor. The current is then closed and rapidly carried to its greatest power (thirty to sixty elements). The position of the cathodes is changed about every five minutes, so as to cover every part of the tumor. The operation lasts about an hour. The tumor becomes livid, gray, and finally black. There is a very slight general and local reaction. In two or three days the part operated upon becomes cold, and, after some discharge, finally comes away *en bloc*, leaving a denuded sur-

face, which is soon covered by healthy granulations. Neftel has also treated benign tumors by this method, though they do not require such energetic treatment as those of the malignant type. The conclusions which he draws are:—

1. Electrolysis is an antiseptic method, and as such may be combined with the ordinary methods of operation.

2. It is preferable to any other method in the treatment of malignant tumors.

3. Malignant tumors should be entirely destroyed by the operation, and at a single *séance*. In benign tumors it is sufficient to establish a retrograde metamorphosis.—*Virchow's Archiv*.

GALVANIZATION OF THE BRAIN, AND ITS VALUE IN THE TREATMENT OF CHOREA.

Charles L. Dana, M. D., details the effects of passing a galvanic current through the healthy human brain, the manner in which these effects are brought about, and gives the notes of eight cases of chorea, occurring in patients ranging in age from eight to fifteen years, treated more or less systematically by cerebral galvanization.

The average duration of the treatment was twenty-five days, of the symptoms thirty-four days, against six and eight weeks in thirty other cases, treated chiefly by arsenic. Dr. Dana, however, does not base his belief in the efficacy of electricity so much upon the statistics of duration as upon the fact—which occurred too frequently for mere coincidence—that evident improvement in the symptoms followed each *séance*, and continued for twenty-four or thirty-six hours.

What is claimed for “anodal galvanization” is that it is a most valuable adjunct in the treatment of chorea; that, if employed daily for a week or ten days, either with or without the simultaneous administration of arsenic, it materially shortens the duration of the majority of attacks occurring in children.

It is to be applied in the following way: A large sponge electrode of flexible brass, two by four inches, is thoroughly moistened with salt water. The hair of the patient is also thoroughly wetted, and the electrode applied over the side of the head, above the ear. In hemi-chorea it need only be applied over the side opposite to the one affected. The other electrode is placed in the hand of the affected side. The

electrode upon the scalp is made positive, and a stable current of from three to six Stohrer's, or four to eight Daniell's cells, is passed from three to six minutes.

IN BASEDOW'S DISEASE.

Dr. Chvostek recommends (*Centralbl. für Klin. Med.*) the following method:—

1. The ascending constant current applied to the cervical sympathetic on each side for at the most one minute.

2. The same to the spinal cord (the anode at about the fifth dorsal spine, the cathode high up in the cervical region).

3. Through the occiput (one pole at each mastoid process), and in certain cases also through the temples, a constant current for at the longest one minute, and so weak that the patient can feel but the slightest sensation of burning. Sometimes also local galvanization of the thyroid gland with a weak constant current for about four minutes, the current to be reversed at the end of each minute. The application should be made every day.

ELECTRICITY AS A GALACTAGOGUE.

M. E. Labbée (*Union Médicale*) calls attention to the value of electricity as an adjuvant to other means for establishing or restoring the secretion of milk in puerperal women. When the secretion is absent or scanty, or when it has been suppressed from any cause, in addition to other modes of treatment (suction of the nipple, poultices of leaves of the *Ricinus communis*, etc.), it is well worth while to employ a weak current of electricity. The mammary gland is to be gently compressed between two electrodes consisting of moistened sponges. A mild current passed twice a day, for from ten to fifteen minutes at a time, will materially increase the functional activity of the gland. [The efficacy of static electricity in this direction has been reported in the *Times* by the writer, and confirmed by further observation in many cases.]

ELECTRICITY IN AURAL PRACTICE.

In nervous deafness, McBride, in "Clinical Notes on Ear-Disease," *Archives of Otology*, vol. xii., Nos. 3 and 4, reports success in several severe cases from induction-currents applied to either tragus, without any other treatment.

Dr. H. L. Morse reports his observation of cases of tinnitus aurium, treated in Vienna. Galvanism was employed—

the anode to the tragus, the cathode to the neck or other indifferent point. Weak currents were used in beginning, and these were gradually increased until sharp stabbing sensations were experienced, the force being thereupon reduced slowly to zero. The dull aching pain, associated with many such cases, was generally relieved promptly; often it was radically cured. If galvanism failed, fradic treatment usually was successful.

Electricity has also been extolled by Urbantschitsch in otalgia as valuable in relieving pain generally, without reference to the ultimate cause.

In the common earache of children, the writer has found galvanism successful after failure of chloroform vapor, atropia, and the ordinary methods employed.

ELECTRICITY IN SUPERINVOLUTION AND SUBINVOLUTION OF THE UTERUS.

Dr. A. D. Rockwell, of New York, in a paper published in the *Medical Record*, January 19, 1884, comments on Dr. Fordyce Barker's remarks made at the last meeting of the American Gynæcological Society, and says:—

“In the following case, lately seen and treated, some of these symptoms were distinctly marked, and so far are confirmatory of Dr. Barker's experience.

“At stated periods there was severe headache, pelvic pains, and nausea. Associated with these symptoms, and far more persistent than any of them, was a condition of melancholia that became intensely aggravated immediately preceding the effort at menstruation, and manifesting itself by an insuperable aversion for persons and things that ordinarily excited in her no such feeling. Two years previously she had suffered from a difficult and dangerous labor, and since that time the menses had not appeared, excepting on two or three occasions, when it was exceedingly scanty and in other ways unnatural. Upon measurement, the uterus was found to be about one and three-fourths of an inch in length. The patient was treated almost daily, for about three months, by internal applications of both faradism and galvanism, when a slight show appeared, for the first time in eighteen months. At the next menstruation, a few weeks subsequently, the flow was much more abundant.

“In subinvolution of the uterus, my experience, though limited, has been somewhat greater than in superinvolution.

The apparently paradoxical action of electricity, as illustrated in the treatment of superinvolution and subinvolution of the uterus, is not a new thing. We constantly find that it relieves both hyperæsthesia and anæsthesia. It is used successfully to excite torpid excretory processes, and also to restrain this function when too active. In the same way it may cause increase, or it may cause diminution in the size of a part or organ.

“Goitres, for example, are readily reduced in size, and sometimes entirely disappear, under simple external galvanization, and so with other forms of morbid growths. On the other hand, it is well known to all whose experience has been at all extended, that normal tissue may be surprisingly developed by persistent local applications.”

ELECTRICITY IN DERMATOLOGY.

Dr. W. A. Hardaway contributes an article on this subject, which concludes as follows:—

“I will close by enumerating a few of the diseases of the skin in which electrolysis may be confidently employed, viz.: pigmented nævi, small fibromata, miliary nodules of lupus, sebaceous cysts, xanthoma (Fox), warts, cutaneous horns, and some stages of epithelioma. From certain observations that I have made in regard to the action of this means in hypertrophied scar tissue, I am inclined to look upon it favorably in keloid.

“In short, it may be confidently stated that whenever it is necessary to use a destructive agent on the skin—one that is readily managed, that causes no hemorrhage, and leaves few scars—there is none better or more efficient than electrolysis.”

Massey believes (in the *Medical News* of January 5, 1884) that faradism cannot hold a prominent place in the therapeutics of skin diseases beyond stimulation of the sensory nerves. In alterations of the nutrition it is manifestly powerless, he states. In this he decides against the experience of dermatologists who advocate induction currents in varied forms of eczema, psoriasis, and acneiform eruptions. The writer has had decided good effect from faradism in these forms of disease, particularly in private practice. General faradization has thus repeatedly acted promptly and decidedly, both from its local stimulating action and its tonic effect on the general health. Exception must likewise

be taken to the statement that "in *most* individuals, much more current will pass through a circuit including the body from the inner surface of one forearm to one of the popliteal spaces than will pass through a circuit made by placing the poles *two inches* apart on the back." Upon what this statement is founded we are at a loss to know. Many years ago we made the rule inflexible of *definite measurement* in applying currents to any and all cases—not so many cells (for electro-motive force varies according to the condition of the battery), but so many millivebers (as the late nomenclature defines it), or so many volts, as now known—and the measurement is always made with a reliable *galvanometer*, not a galvanoscope such as goes along with the ordinary battery. Practice in determining motor points and in applying indifferent electrodes or polar methods should familiarize those who have much to do with electricity, and we felt somewhat startled at this announcement. Not that it is novel, for the statement occurs now and then in popular handbooks. The mean of thirty experiments lately made in different persons with derived currents through a Wheatstone bridge, resistance intercalated by a standard rheostat and definitely measured by a tangent galvanometer, shows this statement to be very decidedly erroneous. The mean resistance was nine and seventeen-twentieths times greater in the brachialpopliteal path than at the most resistant path of *four inches* on the back. At distances of two, three, and four inches, resistance was uniform or nearly so. Taking the general resistance of the human body as twenty-five hundred ohms, a distance of two or three inches between rheophores is negligible, when the electro-motive force is maintained by at least one hundred cells of good type, enough resistance being made by the rheostat to modify the current to a bearable degree, and to steady it. The writer holds that the common method of applying a *few cells* is faulty, and the plan he uses is the one found by electricians in Europe to be the better one. The proof is easily made by any one possessing the proper equipment for absolute measurement and the ability to work it out. The simple word of a patient as to how it feels is at the bottom of this old but erroneous statement with most authors.

Three interesting cases are given which were cured by galvanism—two of eczema and one of herpes.

Seiler exhibited at the late session of the Medical Society

of the State of Pennsylvania, a new arrangement of incandescent lighting of the eye, ear, throat, or nasal cavities. The effect was good, and in some respects superior to that obtained by gas or oil. The battery was an unusually handsome one, of the "electrodynamic" type.—*Philadelphia Medical Times*.

THE FAITH CURE IN COURT.—The Rev. Clement T. Blanchet is an Episcopal minister who cannot be accused of not practising what he preaches. He is a firm believer in the faith cure, and tested it upon his six-year-old daughter until the Society for the Prevention of Cruelty to Children interfered in the child's behalf. The child in question broke one or both bones of her fore-arm. The parents both agreed to try the faith cure, and suitable prayers were offered. The child's arm did tolerably well, it being only a greenstick fracture. The neighbors interfered, however, the Assistant Bishop sent a letter of protest, and the Society for the Prevention of Cruelty to Children had the father summoned before a justice. A doctor was called, and the arm set. The faith cure has thus failed to encroach on the domain of surgery.—*Medical Record*.

It is well known that albuminous foods in excess give rise to the condition known as biliousness. Fothergill explains this by claiming that the albumenoids undergo a sort of second digestion in the liver. The experiments of Dr. Carl L. Jensen show that the bile acids are produced in the stomach by the action of pepsin upon albuminous food. This discovery is of much interest and importance. It seems, then, that the liver is an excreting organ pure and simple; that the bile acids, formerly supposed to be manufactured by the liver, are manufactured in the above-mentioned way, absorbed into the blood, and separated therefrom by the liver. It is very plain that excess of albuminous foods may overload the liver with bile elements. The kidneys must come to the rescue when the liver fails to excrete these elements. That there should be pathological relations then between the liver and kidneys is not strange.—*Medical World*.